WHAT IS CLAIMED IS:

1. A method of manufacturing a thermoplastic composite wood material comprising the steps of:

mixing together a first quantity of a first wood component of wood chips having long axes and a first size range, a second quantity of a second wood component of wood particles having a second size, the second size range being distinct from the first size range and having substantially smaller values than the first size range, and a third quantity of a first thermoplastic polymer component of molten thermoplastic polymer until substantially all of the wood chips and the wood particles are encapsulated by the thermoplastic polymer;

orienting the long axes of the wood chips of the first wood component such that they are substantially parallel to a predetermined plane;

depositing a loose material constituting a mixture of the wood chips encapsulated in the thermoplastic polymer and the wood particles encapsulated in the thermoplastic polymer onto a press inlet feed unit while maintaining the orientation of the long axes of the wood chips; and

pressing the loose material in a direction substantially parallel to the predetermined plane such that it is compacted and such that the long axes of the wood chips are aligned substantially parallel to one another.

2. A method in accordance with claim 1, further comprising the steps of:

forming the material resulting from the pressing step into an inner structural member;

mixing together a fourth quantity of a third wood component of wood particles having a third size range and a fifth quantity of a second thermoplastic component of molten thermoplastic until substantially all of the wood particles of the third wood component are encapsulated by the thermoplastic polymer of the second thermoplastic component; and

continuously joining the material created by mixing the third wood component and the second thermoplastic component to the inner structural member to form an outer structural member.

3. A method in accordance with claim 2, wherein the outer structural member completely surrounds the inner structural member when the thermoplastic composite wood material is viewed in cross section.

4. A method in accordance with claim 2, wherein the outer structural member does not completely surround the inner structural member when the thermoplastic composite wood material is viewed in cross section.

5. A method in accordance with claim 2, wherein the step of continuously joining the outer structural member to the inner structural member is performed using a hot melt extruder and profile molder.

6. A method in accordance with claim 2, wherein the step of continuously joining the outer structural member to the inner structural member further comprises:

using calender forming rolls to form the material created by mixing the third wood component and the second thermoplastic component into a thin sheet; and

pressing the thin sheet onto the inner structural member using rollers.

7. A compounder unit for mixing and orienting shaped pieces within a viscous material, the compounder unit comprising:

an outer casing having exterior walls defining a longitudinal cavity therein, the cavity being subdivided into a material inlet section, a mixing section, an orientation section, and an outlet passage and having a long axis passing therethrough;

at least one compounding shaft being positioned within the longitudinal cavity parallel to the long axis, the compounding shaft having a plurality of blades formed thereon;

wherein the blades on a portion of compounding shaft within the orientation section include screw blades having a pitch which progressively decreases as the distance from the blade position to the outlet passage decreases.

8. A compounder unit in accordance with claim 7, wherein:

two compounding shafts are positioned within the longitudinal cavity and parallel to the long axis; and

the blades of the two compounding shafts work cooperatively to transfer the shaped wood pieces and molten thermoplastic through the inlet section, to mix the wood and thermoplastic components within the mixing section, and to orient the shaped wood pieces such that their axes are parallel to a predetermined plane.

9. A coating die apparatus for extruding a viscous material, the apparatus comprising:

an exterior casing that defines a longitudinal cavity;

a shaft rotatably mounted in the cavity, the shaft having a plurality of mixing elements mounted thereon defining a feed section and a dispensing section;

the mixing elements in the feed section having a positive pitch for urging molten material received into the feed section of the cavity into the dispensing section of the cavity;

the mixing elements in the dispensing section urging molten material received in the dispensing section tangentially against the interior of the exterior casing;

the exterior casing further defining a dispensing slot formed tangentially through the exterior casing and extending longitudinally across the dispensing section;

wherein molten material received into the dispensing section is sliced off by the exposed inner edge of the casing to form a raw sheet of molten material which exits the dispensing slot.

10. A coating die apparatus in accordance with claim 9, wherein the exterior casing has a cylindrical cross section when viewed from an end.

11. A coating die apparatus in accordance with claim 10, wherein the mixing elements in the dispensing section comprise a plurality of rectangular paddles mounted on the shaft such that longitudinally adjacent paddles are angularly spaced apart from one another.